ABSTRACT OF THE DISCLOSURE

A fuel cell distributed generation system that employs a load following control algorithm that provides the desired output power from a fuel cell on demand. The system includes a current sensor that measures the current drawn from the fuel cell available to satisfy the application load demands. A fuel cell controller receives the measured current and provides a command signal to the fuel cell to increase or decrease its power generation based on the demand. The controller also defines a maximum current that the system can draw from the fuel cell based on its fuel input. The system may include a battery current sensor that measures battery current to insure that the system battery is not being drained. Also, the system may include a battery voltage sensor that monitors battery voltage drift.